

TESTING

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Overview

- Definitions
- Test Activities
- Block IV Major Test Events
- TEMP Schedule
- Support to External Tests
- Challenges

Definitions

- Major Release (Del 3, Blk IV, CP1)
 - New Mission Application Functionality
 - Significant Changes to Layer2 or Layer 3 Software Infrastructure
 - Formal Testing Req'd
- Minor Release (D.3.2.5.1, CP1.20)
 - System Enhancements and/or Maintenance SCRs
 - May Includes New or Modified System/SW Requirements
 - Formal Testing Req'd

Definitions (cont)

- Maintenance Release (D3.2.5.1P1)
 - Maintenance SCRs Only - no new requirements
 - Formal Testing Req'd
- Engineering Release (D3.2.5.1e1)
 - Snapshot of a developing baseline -
 - NO Formal Testing

Definitions (cont)

- Formal Test
 - Conducted on a CM-controlled configuration;
 - Using documented test procedures;
 - Requires Gov't Witness
- The Development Team Conducts Non-Formal Testing
- The Integration and Test Team Conducts Formal Testing

In-Plant Test Activities

| Test Activity | Major Release | Minor Release | Maint. Release | Eng. Release | Dx | CP2 | Performing Org / Supporting Org. |
|----------------------------------|---------------|---------------|----------------|--------------|-----|-----|----------------------------------|
| Non-Formal Testing | | | | | | | |
| Unit Test | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Software/ Test |
| Dev/Int | ✓ | ✓ | ✓ | ✓ | ✓ | | Software/ Test |
| Software Integration Test (SWIT) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Software/ Test |
| Formal Testing | | | | | | | |
| Segment Verification | | | | | | | |
| Requirements Verification | ✓ | A/R | | | A/R | | Test/ SE/ Software |
| Segment Regression Test | ✓ | ✓ | A/R | | A/R | | Test/ SE/ Software |
| SCR Verification | ✓ | ✓ | ✓ | | ✓ | ✓ | Test/ Software |
| System Regression Test | ✓ | A/R | A/R | | A/R | | Test/ Software |
| Delivery Verification | ✓ | ✓ | A/R | | A/R | | Test/ Software |
| FQT (Major Release only) | ✓ | | | | ✓ | ✓ | Test/ SE/Software |
| I&T (Major Release only) | ✓ | | | | ✓ | ✓ | Test/ SE/ Software |

A/R = As Required

Site Test

- Major Releases
- Conducted at a User Site
- ATEC Participation and oversight
- Includes Interoperability Testing as required
- Results in System Of Record (SOR) determination

SUPPORT TO EXTERNAL TESTS

- Events since last review:
 - FT4
 - DCX II
 - TBMCS 1.1
- Current and Future Events
 - MC02
 - FT5
 - MCS IOTE
 - MCS TCO
 - JOPES 21
 - TBMCS

BLOCK IV MAJOR TEST EVENTS

- Formal Qualification Test (FQT)
 - Conducted at contractor facility
 - Contractor conducts, government witnesses
- Integration and Test (I&T)
 - Conducted at contractor facility
 - Conducted by Government (site) personnel
- Site Test (ST)/Operational Assessment
 - Conducted by Government (ATEC)

CHALLENGES

- SCR Workload
- Staffing of TEMP for Block IV
- Exercise & Fielding Support